

Title (en)

METHOD FOR REGULATING COMPONENTS OF MOLTEN IRON FLOWING FROM SHAFT FURNACE

Publication

EP 0171438 B1 19880921 (EN)

Application

EP 85900767 A 19850204

Priority

JP 1918384 A 19840204

Abstract (en)

[origin: WO8503524A1] At least one lance is disposed substantially vertically so that the lower end of molten iron of a shaft furnace is isolated from the surface of molten iron flowing through a melted iron trough at a predetermined interval above the trough, and particular component adjustor for adjusting the components of the molten iron is blown from the lance via carrier gas into the molten iron so as to satisfy the following two relational formulae: $0.5 \leq H < H_p$ H (1); $H_p = M \times G \times \exp(-r) / (D + 0.2HL)^2$ (2), where in the formulae (1) and (2) H: depth of molten iron in the trough (mm); H_p : depth of blowing particular component adjustor into the trough; M: flow rate of particular component adjustor (kg/min.); G: flow rate of carrier gas ($Nm^3/min.$); r: average particle diameter of particular component adjustor (mm); D: inner diameter of lance (mm); and HL: distance between the surface of the molten iron in the trough and the lower end of the lance (mm).

IPC 1-7

C21C 1/00; **C21C 1/02**; **C21C 1/04**; **C21B 7/14**

IPC 8 full level

C21C 1/04 (2006.01); **C21B 7/14** (2006.01); **C21C 1/00** (2006.01); **C21C 1/02** (2006.01); **F27B 1/21** (2006.01)

CPC (source: EP US)

C21C 1/00 (2013.01 - EP US); **C21C 1/02** (2013.01 - EP US); **F27B 1/21** (2013.01 - EP US)

Designated contracting state (EPC)

FR

DOCDB simple family (publication)

DE 3590014 C2 19870716; BR 8504997 A 19860121; DE 3590014 T 19860123; EP 0171438 A1 19860219; EP 0171438 A4 19860605; EP 0171438 B1 19880921; GB 2162858 A 19860212; GB 2162858 B 19870930; GB 8517506 D0 19850814; IN 164629 B 19890422; JP S60162717 A 19850824; KR 850700258 A 19851226; KR 900001888 B1 19900326; US 4601749 A 19860722; WO 8503524 A1 19850815

DOCDB simple family (application)

DE 3590014 A 19850204; BR 8504997 A 19850204; DE 3590014 T 19850204; EP 85900767 A 19850204; GB 8517506 A 19850204; IN 318MA1985 A 19850427; JP 1918384 A 19840204; JP 8500045 W 19850204; KR 850700203 A 19850902; US 77696885 A 19850904